

## SERVICE MANUAL

US Model



## SPECIFICATIONS

TV standard	American TV standard
Channel coverage	VHF channels 2-13 UHF channels 14-69
Radio frequency range	FM 87.6-108 MHz AW 530-1,605 kHz
Antenna	VHF/UHF/FM: telescopic antenna AM: Built-in ferrite bar antenna
Picture tube	4.5-inch picture measured diagonally
Input	EXT ANT: minijack, 75 ohms
Output	EARPHONE: minijack, impedance 8-300 ohms
Speaker	Full range $\phi$ 10 cm ( $\phi$ 4 inches)
Power requirements	120 V AC, 60 Hz or 12 V DC
Battery life	(approx. hrs.)

Batteries	TV	TV audio only	RADIO	
			AM	FM
Sony SUM-1 (NS)	1.5	10	25	25
Sony alkaline AM1 (N)	5	30	70	70

Power consumption	20 W (120 V AC) 11 W (12 V DC)
Dimensions	Approx. 146 x 235 x 146 mm (w/h/d) (5 $\frac{3}{4}$ x 9 $\frac{3}{8}$ x 5 $\frac{3}{4}$ inches) excl. projecting parts and controls Approx. 156.5 x 241 x 159 mm (w/h/d) (6 $\frac{1}{4}$ x 9 $\frac{1}{2}$ x 6 $\frac{3}{8}$ inches) incl. projecting parts and controls
Weight	Approx. 3 kg (6 lb 9 oz) incl. batteries
Supplied accessory	AC power cord (1)

## FEATURES

- 4.5-inch black and white 90° deflection picture tube.
- FM/AM radio is combined.
- Built-in 4-inch dia. speaker with powerful output and good sound suitable for garden and kitchen use.
- Sound position enables listening to the TV sound only.
- Carrying handle for easy carrying.
- 3-way power source capability allows use in any situation.



BLACK AND WHITE  
TV-FM/AM RECEIVER  
**SONY**®

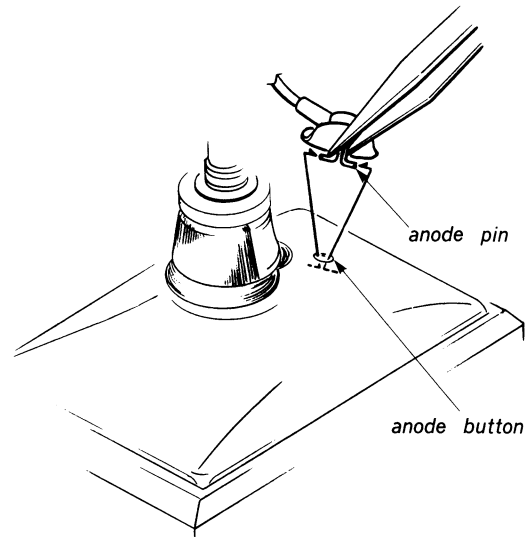
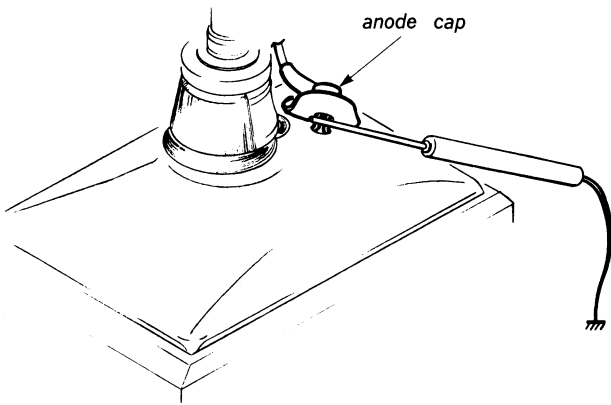
**NOTE ON THE ANODE CAP REMOVAL**

Even when the power switch is off, the voltage at the anode cap is still high.  
Remove the anode cap as follows.

1. Discharge the anode pin to the ground.

2. Pinch and remove the anode pin with a pair of tweezers.



At this time, be careful not to scratch the anode button.



Caution on Reinstallation:

Confirm that the anode button is inserted into the anode cap securely.

**SAFETY-RELATED COMPONENT WARNING!!**

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the condition of the monopole antenna (if any).  
Make sure the end is not broken off, and has the plastic cap on it. Point out the danger of impalement on a broken antenna to the customer, and recommend the antenna's replacement.
8. Check the B+ and HV to see they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
9. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

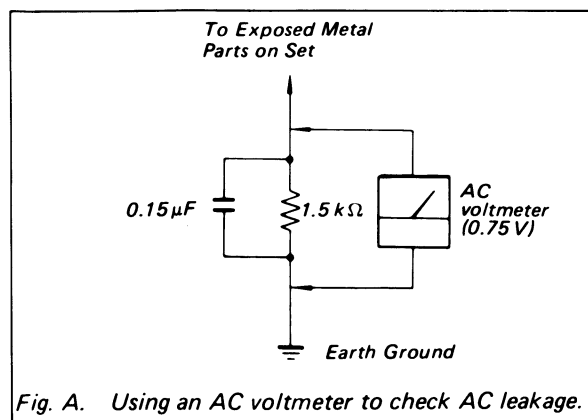


Fig. A. Using an AC voltmeter to check AC leakage.

## LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

## HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60–100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

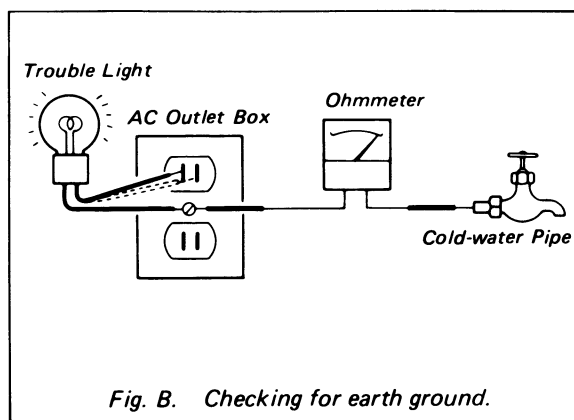
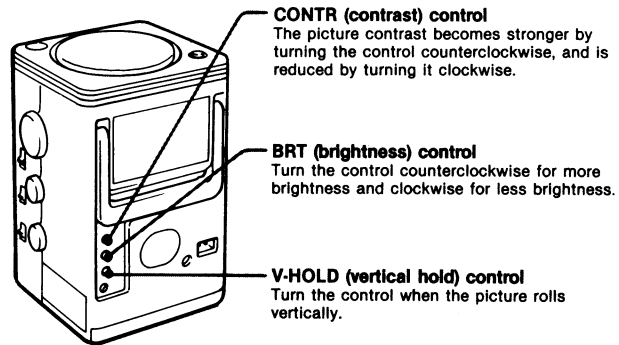
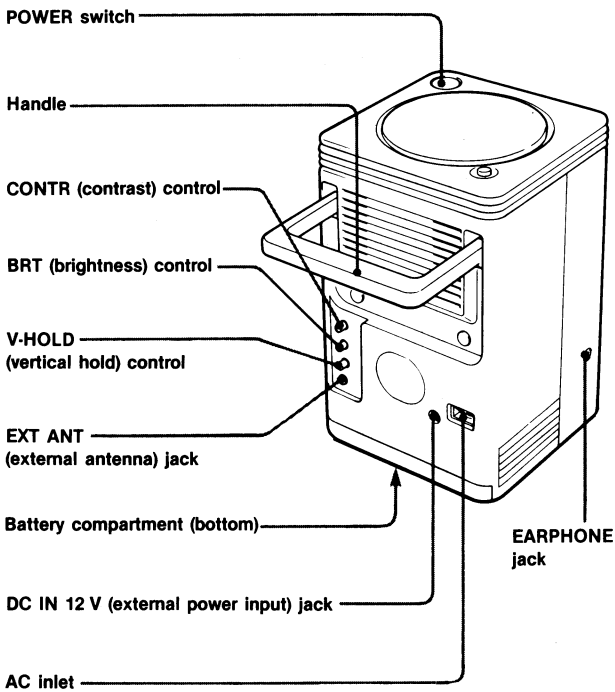
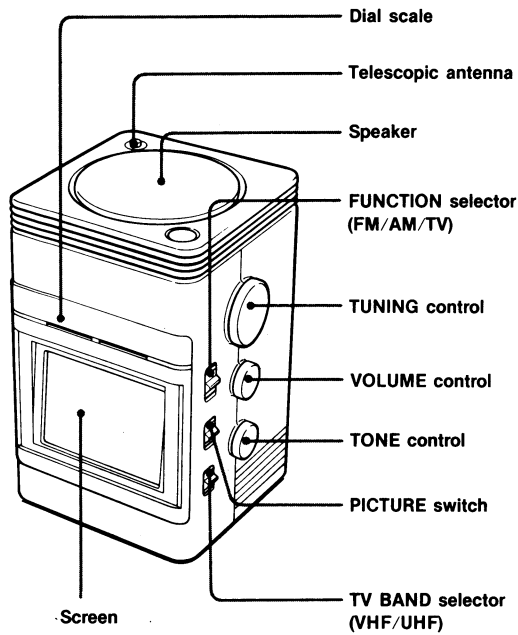


Fig. B. Checking for earth ground.

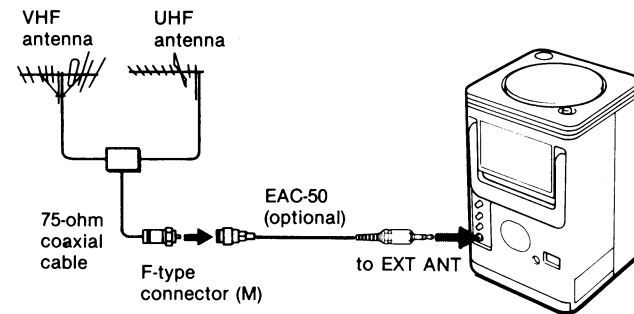
## SECTION 1 GENERAL

### LOCATION OF CONTROLS

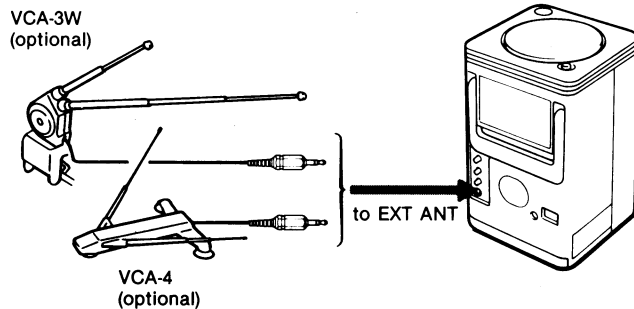


### EXTERNAL ANTENNA CONNECTION

#### Outdoor antenna

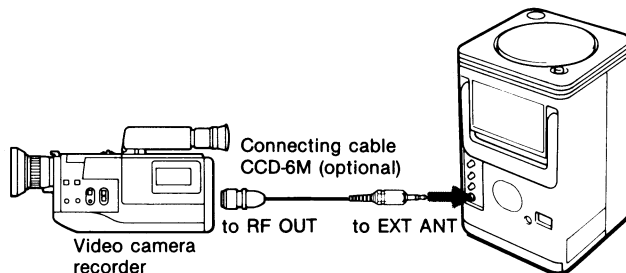


#### Car antenna



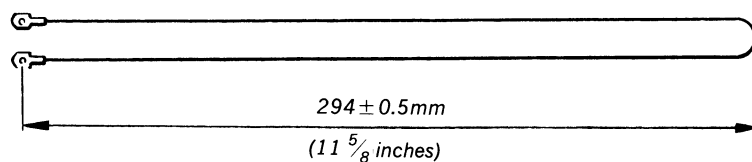
#### Monitoring the Video Camera Recorder

After connecting as illustrated, turn on the power of the equipments and tune in the channel 3 or 4.

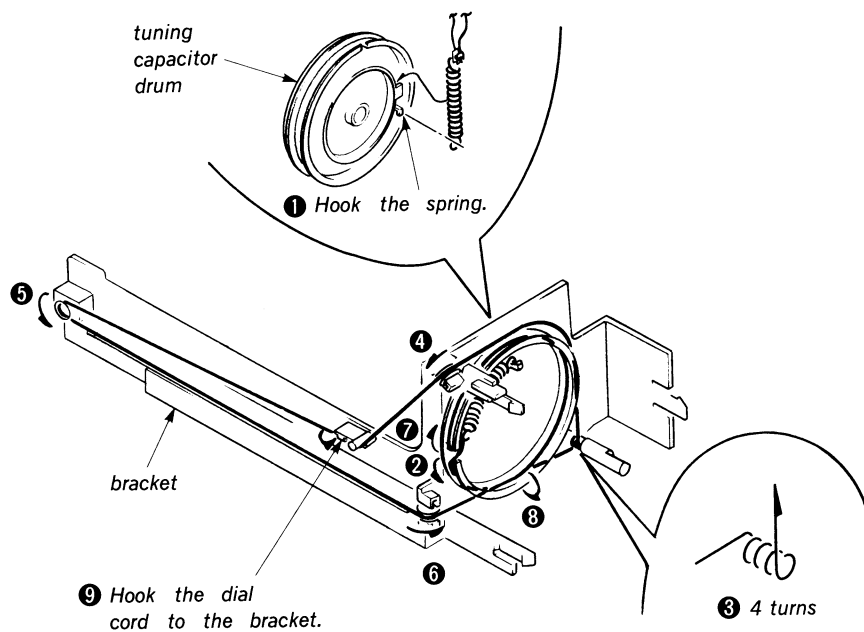


## SECTION 2 DIAL CORD STRINGING

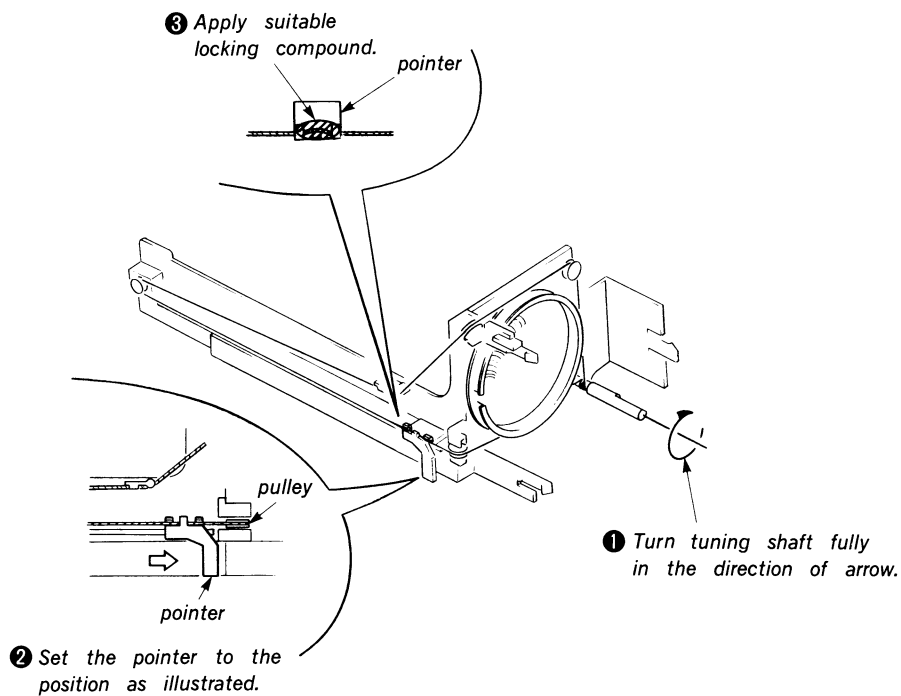
### 2-1. PREPARATION



### 2-2. STRINGING



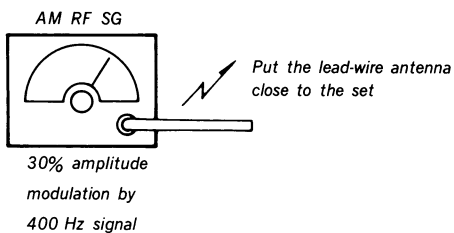
### 2-3. POINTER SETTING



## SECTION 3 ELECTRICAL ADJUSTMENTS

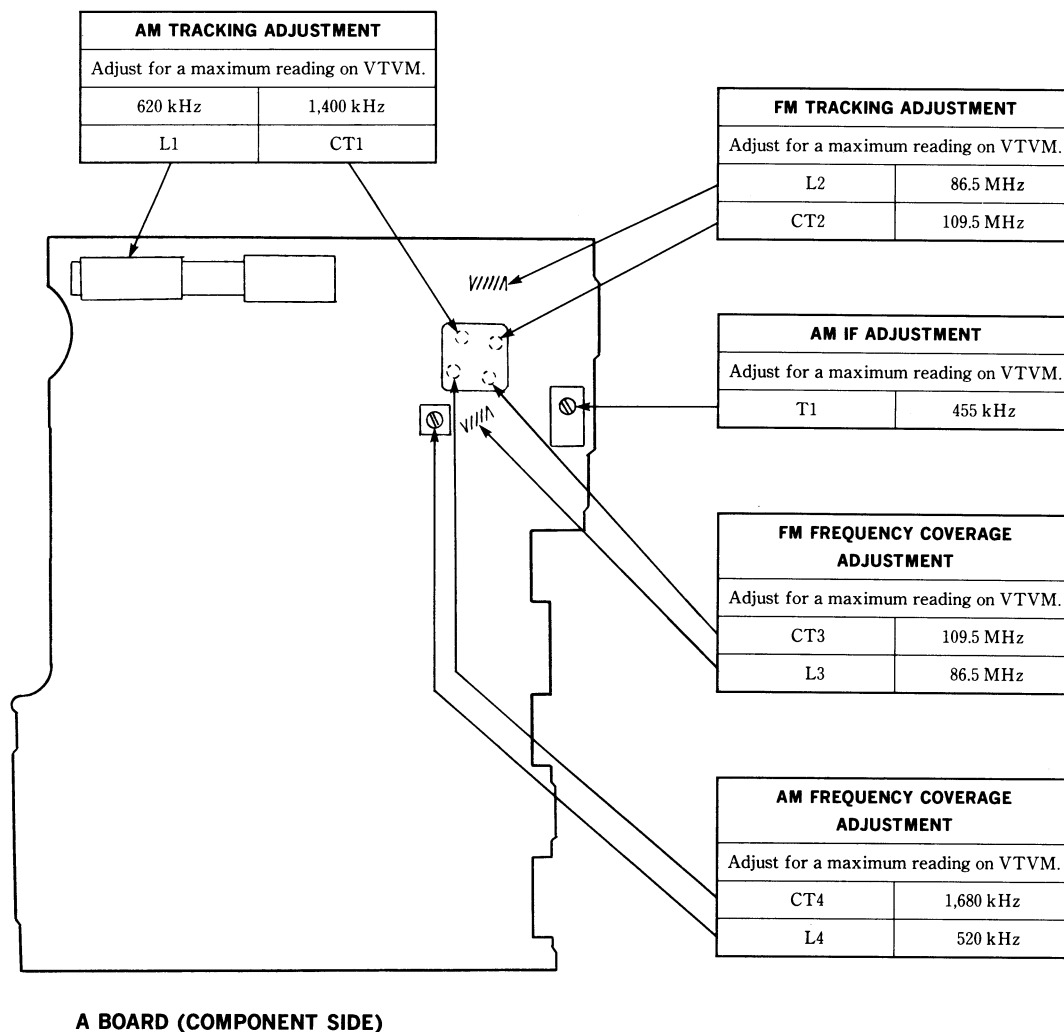
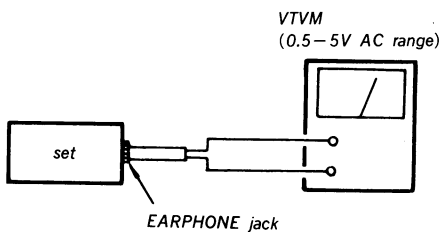
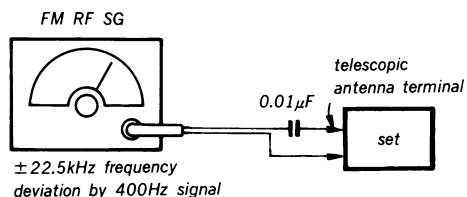
### 3-1. FM/AM SECTION

**AM**



- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

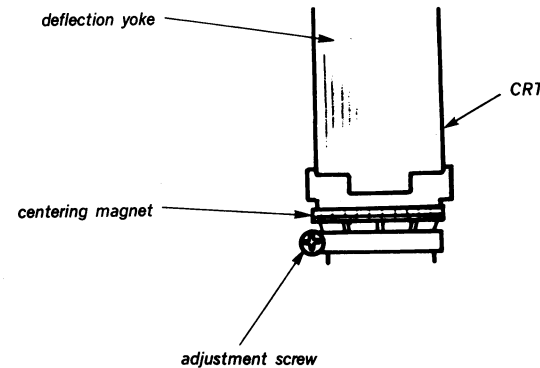
**FM**



## 3-2. TV SECTION

**Centering Adjustment**

1. Tune in an off-air signal.
2. Adjust the centering magnet so that the picture is in the center.
3. After the adjustment, lock the magnets with suitable locking compound.

**Channel Display Adjustment**

1. Set the TV BAND switch to VHF.
2. Turn the TUNING knob, set the dial pointer to the letter "2" on dial scale.  
Adjust RV155 for the optimum picture...(V.L.START)
3. Turn the TUNING knob, set the dial pointer to the letter "6" on dial scale.  
Adjust RV151 for the optimum picture...(V.L.END)
4. Turn the TUNING knob, set the dial pointer to the letter "7" on dial scale.  
Adjust RV154 for the optimum picture...(V.H.START)
5. Turn the TUNING knob, set the dial pointer to the letter "13" on dial scale.  
Adjust RV152 for the optimum picture...(V.H.END)

6. When tuning in all the off-the-air signals (VHF CH2 —13) capable of receiving, make sure that the dial pointer is correctly set to the dial scale.
7. Set the TV BAND switch to UHF.
8. Turn the TUNING knob, set the dial pointer to the letter "69" on dial scale.  
Adjust RV153 for the optimum picture... (U. END)
9. When tuning in all the off-the-air signals (UHF CH14 —69) capable of receiving, make sure that the pointer is correctly set to the dial scale.

**RF AGC Adjustment**

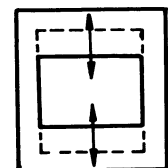
1. Tune in an off-the-air signal.
2. Adjust RV201 so that snow noise disappears from the picture.

**Horizontal Frequency (H-FREQ) Adjustment**

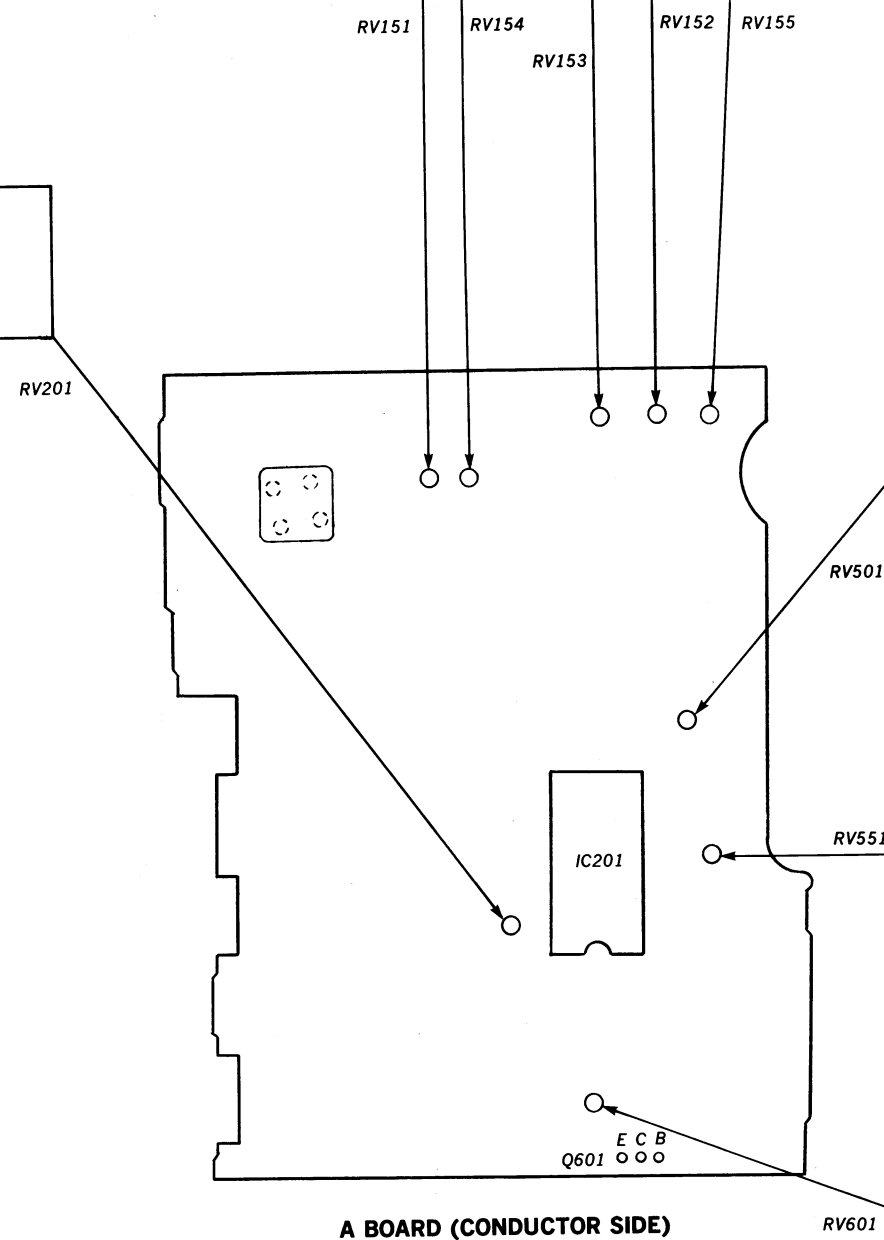
1. Connect between IC201 pin ⑥ and pin ⑳ with 1kΩ resistor.
2. Connect the frequency counter to IC201 pin ⑰.
3. Adjust RV501 for a 15.734KHz±60Hz reading on frequency counter.
4. After the adjustment, remove the resistor in step 1.

**Vertical Amplitude (V-SIZE) Adjustment**

1. Tune in an off-the-air signal.
2. Adjust RV551 for the best vertical amplitude.

**B+ (9.5V) Adjustment**

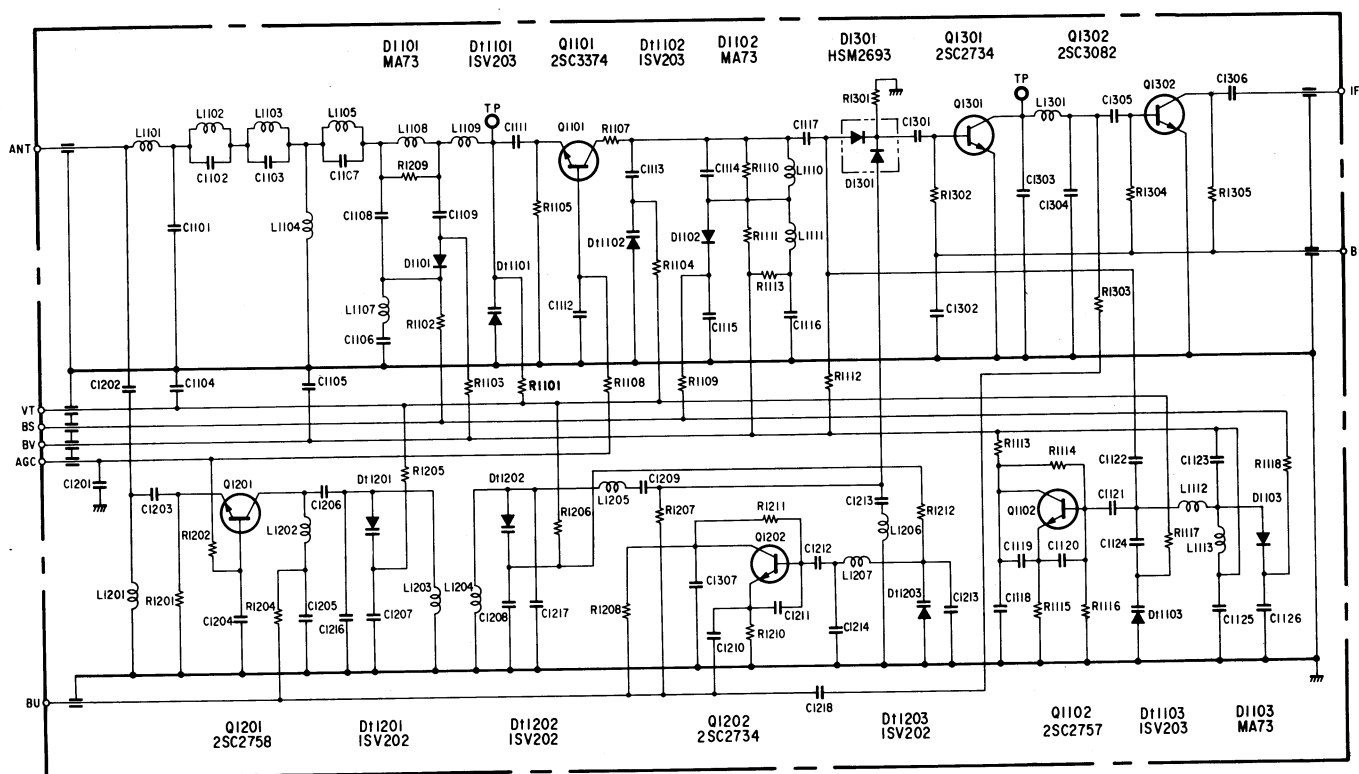
- Adjust RV601 for 9.5V reading on collector voltage of Q601.



A BOARD (CONDUCTOR SIDE)

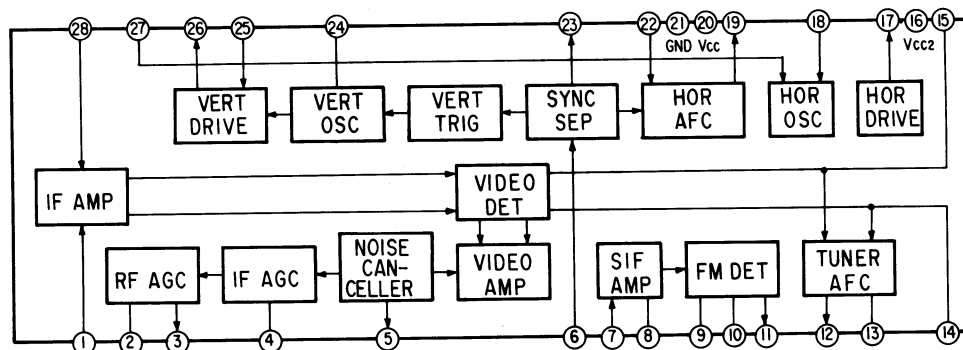
## SECTION 4 DIAGRAMS

### 4-1. UHF/VHF TUNER UNIT SCHEMATIC DIAGRAM

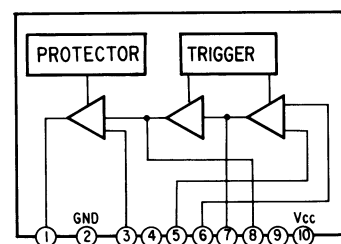


### 4-2. IC BLOCK DIAGRAM

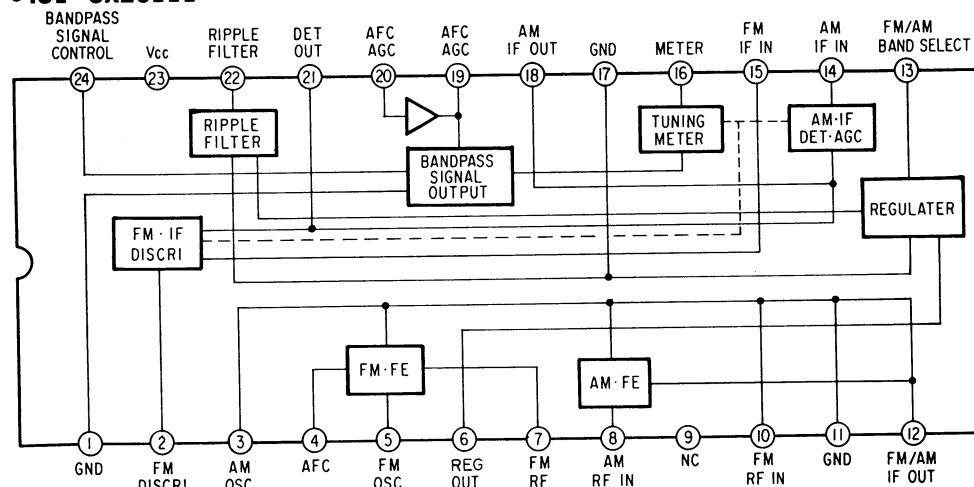
#### •IC201 AN5151N



#### •IC451 BA532



#### •IC1 CX20111





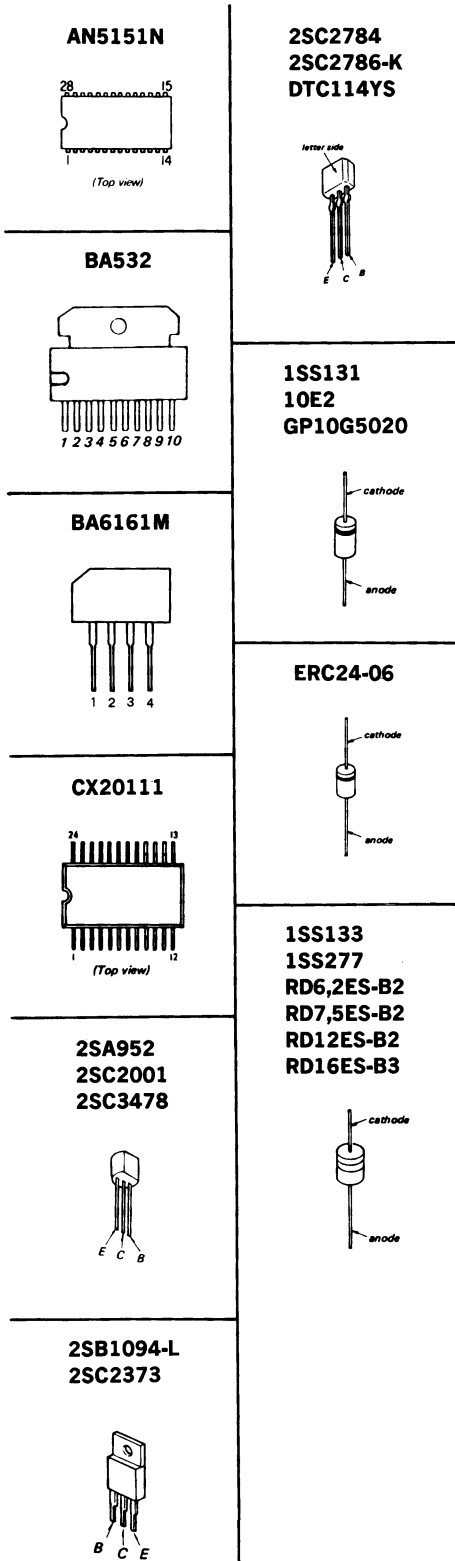
**Note on Schematic Diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\triangle$ : internal component.
- $\text{R}$ : nonflammable resistor.
- Switch

Ref. No.	Switch	Position
S1	FUNCTION	FM
S151	TV BAND	VHF
S601	POWER	OFF
S602	PICTURE	OFF

- $\square$ : adjustment for repair.
- Power voltage is dc 12V and fed with regulated dc power supply from external power voltage jack.  
no mark: FM  
( ) : AM  
< > : VHF  
[ ] : UHF
- Voltages are taken with a VOM (50 k $\Omega$ /V).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Signal path.  
 $\Rightarrow$  : FM  
 $\Rightarrow$  : TV(AUDIO)  
 $\Rightarrow$  : TV(VIDEO)

● Semiconductor Lead Layouts



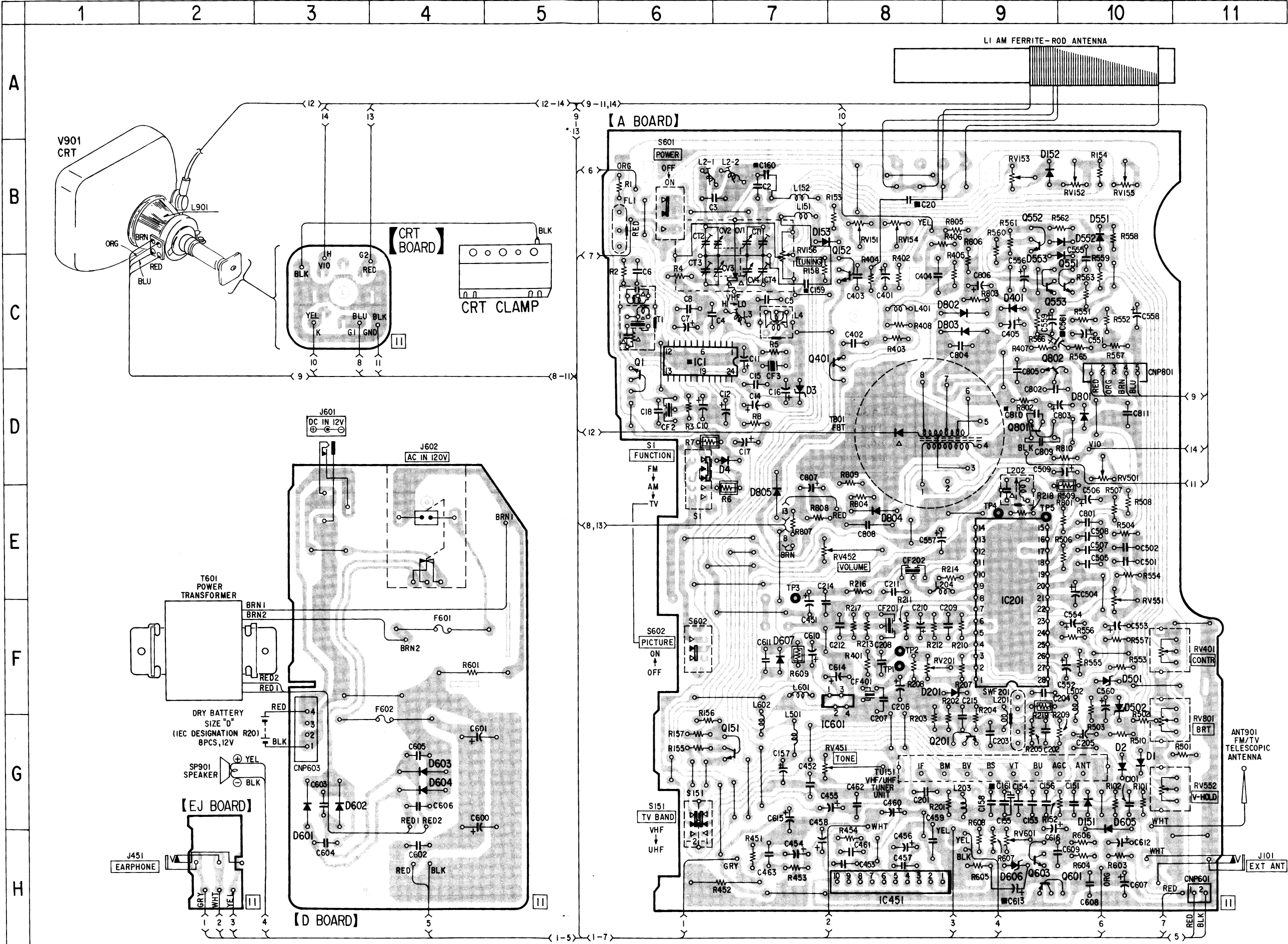
● Semiconductor Location

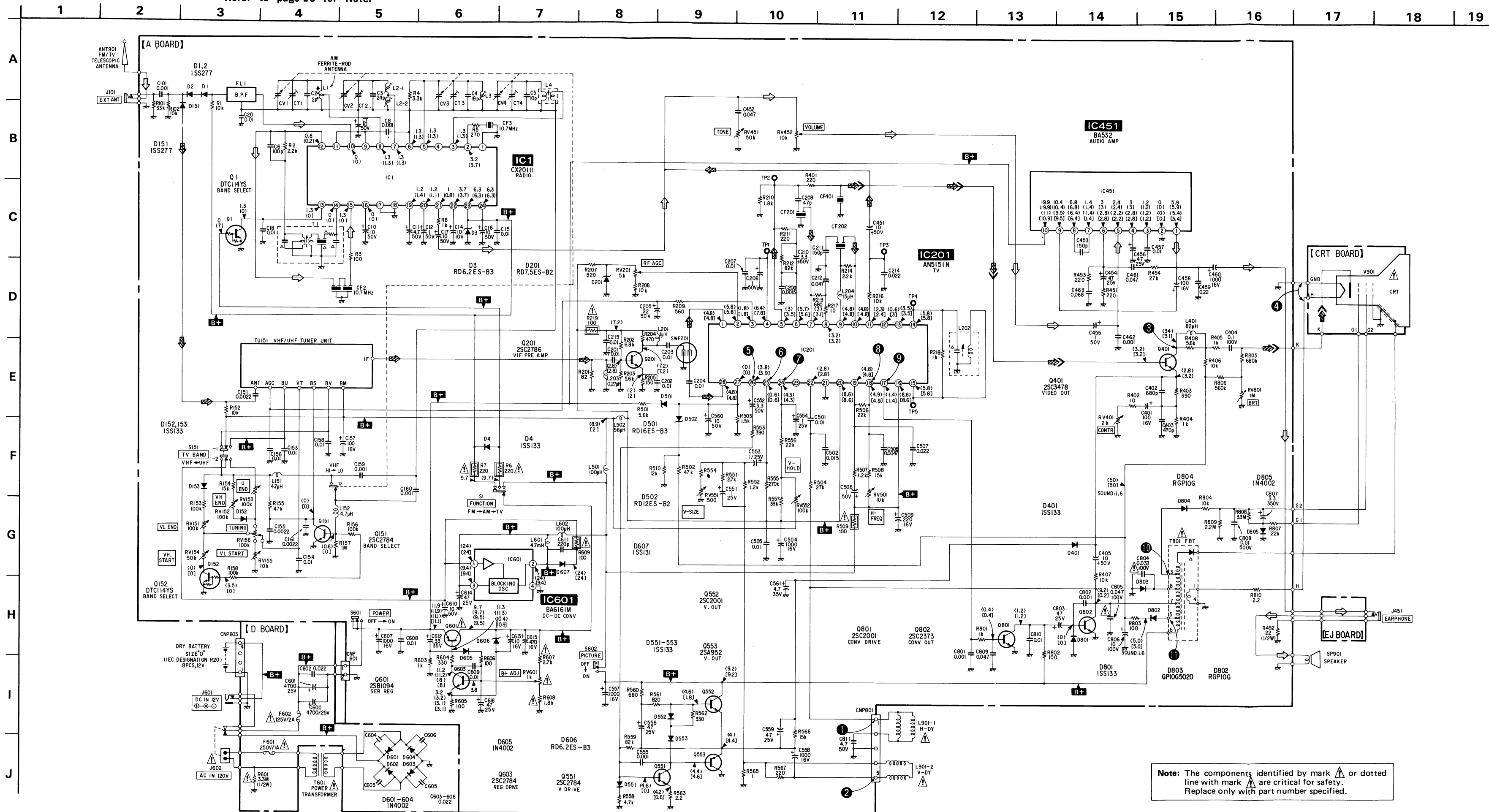
Ref. No.	Location	Ref. No.	Location
D1	G-10	IC1	C-6
D2	G-10	IC201	F-9
D3	D-7	IC451	H-8
D4	D-7	IC601	F-8
D151	G-10		
D152	B-9	Q1	D-6
D153	B-7	Q151	G-7
D201	F-9	Q152	C-8
D401	C-9	Q201	G-9
D501	F-10	Q401	C-8
D502	F-10	Q551	C-10
D551	B-10	Q552	B-9
D552	B-10	Q553	C-9
D553	C-10	Q601	H-9
D601	G-3	Q603	H-9
D602	G-3	Q801	D-9
D603	G-4	Q802	D-9
D604	G-4		
D605	H-10		
D606	H-9		
D607	F-7		
D801	D-10		
D802	C-9		
D803	C-9		
D804	E-8		
D805	E-7		

**Note on Mounting Diagram:**

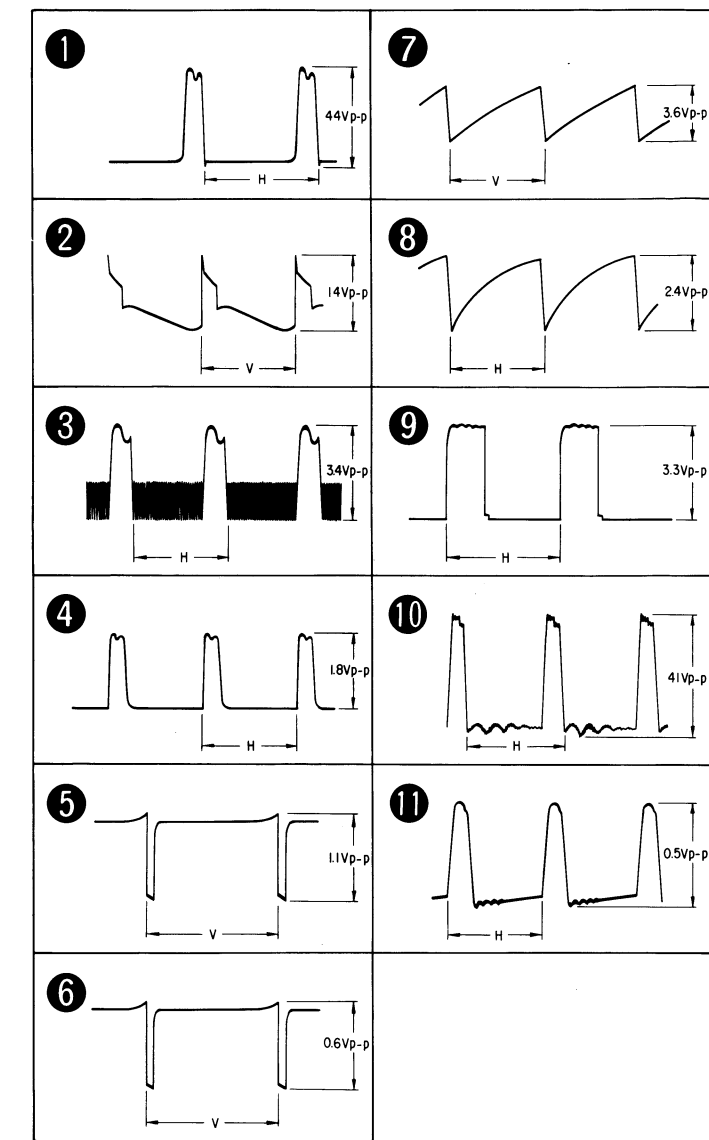
- $\circ$  : parts extracted from the component side.
- $\blacksquare$  : parts mounted on the conductor side.
- $\square$  : indicates side identified with part number.

4-3. PRINTED WIRING BOARDS





## • WAVEFORMS



## SECTION 5 EXPLODED VIEW

### NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.



- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.

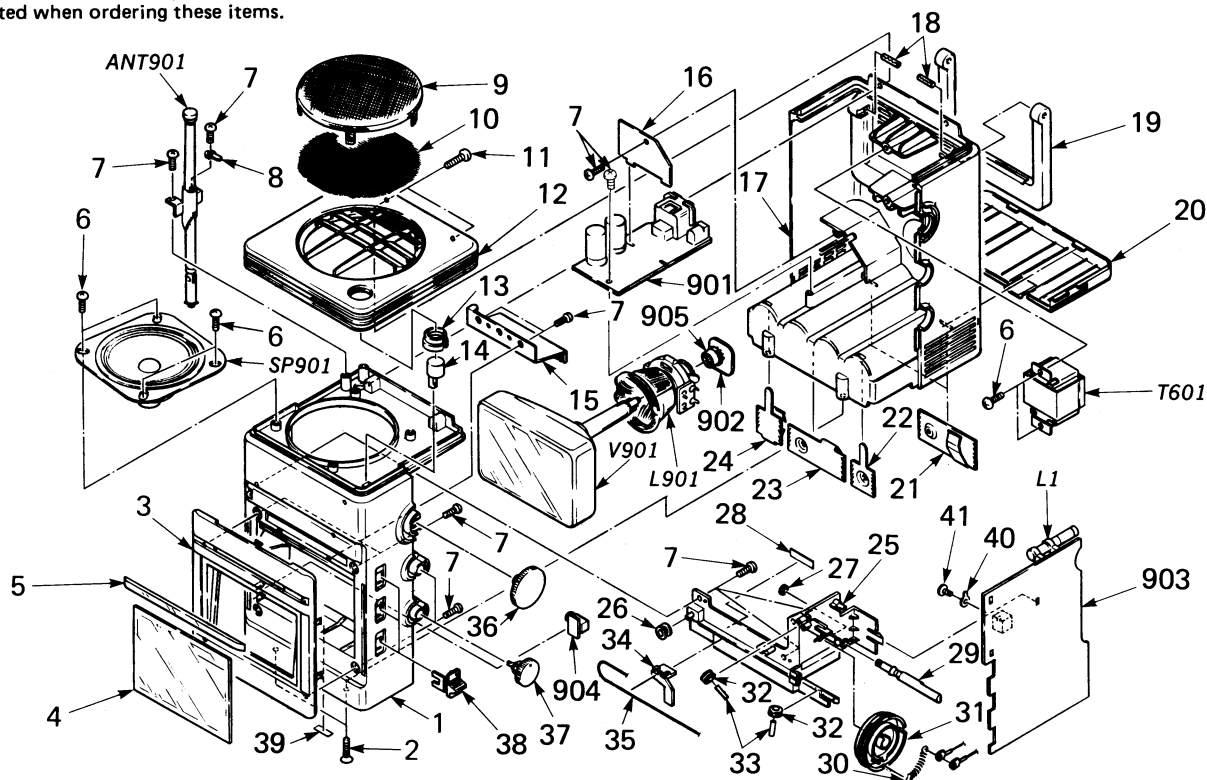
- Color Indication of Appearance Parts  
Example:

(RED) ... KNOB, BALANCE (WHITE)




↑  
Cabinet's Color

↑  
Parts Color

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.



Ref.No	Part No.	Description	Remark
1	3-345-525-01	(BLACK) ... CABINET (FRONT)	
1	3-345-525-11	(GRAY) ... CABINET (FRONT)	
1	3-345-525-21	(RED) ... CABINET (FRONT)	
2	7-685-261-14	SCREW +KTP 4X12 TYPE2 NON-SLIT	
3	3-345-522-01	PANEL, FRONT	
4	3-345-511-01	FILTER	
5	3-345-512-01	WINDOW, DIAL	
6	7-685-160-11	SCREW +P 4X10 TYPE2 NON-SLIT	
7	7-685-646-79	SCREW +P 3X8 TYPE2 NON-SLIT	
8	7-623-508-01	LUG, 3	
9	3-345-518-01	GRILLE, SP	
10	3-345-501-01	NET, SP	
11	7-685-883-04	SCREW +BVTT 4X12 (S)	
12	3-345-520-01	COVER, TOP	
13	3-345-513-01	RING	
14	3-345-517-01	BUTTON, POWER	
15	*3-345-504-01	CLAMP, CRT	
16	*3-345-502-01	INSULATOR	
17	3-345-526-01	(BLACK) ... CABINET (REAR)	
17	3-345-526-11	(GRAY) ... CABINET (REAR)	
17	3-345-526-21	(RED) ... CABINET (REAR)	
18	7-626-323-71	PIN, SPRING 4X22	
19	3-345-519-01	(BLACK, GRAY) ... HANDLE (GRAY)	
19	3-345-519-21	(RED) ... HANDLE (RED)	
20	3-345-521-01	(BLACK) ... LID, BATTERY CASE	
20	3-345-521-11	(GRAY) ... LID, BATTERY CASE	
20	3-345-521-21	(RED) ... LID, BATTERY CASE	
21	3-345-507-01	TERMINAL BOARD (B), BATTERY	
22	3-345-505-01	TERMINAL BOARD, PLUS	
23	3-345-508-01	TERMINAL BOARD (A), BATTERY	
24	3-345-506-01	TERMINAL BOARD, MINUS	
25	*3-345-523-01	BRACKET	
26	*3-304-108-00	PULLEY	

Ref.No	Part No.	Description	Remark
27	7-624-106-04	STOP RING 3.0, TYPE -E	
28	3-314-062-00	LABEL, CAUTION, SERVICE	
29	*3-345-503-01	SHAFT, TUNING	
30	3-564-949-00	SPRING, TENSION	
31	*3-345-516-01	DRUM, TUNING CAPACITOR	
32	*3-881-911-00	PULLEY	
33	*3-703-358-53	PIN, PARALLEL (DIA. 2X8)	
34	*3-345-509-01	POINTER	
35	9-911-825-32	STRING DIAL 0.3DIA	
36	3-345-514-01	(BLACK) ... KNOB, TUNING	
36	3-345-514-11	(GRAY) ... KNOB, TUNING	
36	3-345-514-21	(RED) ... KNOB, TUNING	
37	3-345-510-01	(BLACK) ... KNOB, VOLUME	
37	3-345-510-11	(GRAY) ... KNOB, VOLUME	
37	3-345-510-21	(RED) ... KNOB, VOLUME	
38	3-345-524-01	(BLACK) ... KNOB, SWITCH	
38	3-345-524-11	(GRAY) ... KNOB, SWITCH	
38	3-345-524-21	(RED) ... KNOB, SWITCH	
39	*3-701-999-00	LABEL, SERIAL NUMBER	
40	3-305-625-00	CAP, TUNING CAPACITOR	
41	3-714-118-01	SCREW (1.7X4)	
901	*1-625-662-11	PC BOARD, D	
902	*1-625-661-11	PC BOARD, CRT	
903	*A-3015-618-A	PC BOARD ASSY, A	
904	*1-625-660-11	PC BOARD, EJ	
905	1-526-736-00	SOCKET, CRT	
ANT901	1-501-405-11	ANTENNA, TELESCOPIC	
L1	1-402-355-11	ANTENNA, FERRITE-ROD (AM)	
L901	 1-451-318-11	DEFLECTION YOKE	
SP901	1-503-916-11	SPEAKER	
T601	 1-449-167-11	TRANSFORMER, POWER	
V901	 1-546-069-11	CATHODE-RAY TUBE, B/W	

## SECTION 6 ELECTRICAL PARTS LIST

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.



**CAPACITORS:**MF:  $\mu$ F, PF:  $\mu$ F.**RESISTORS**

- All resistors are in ohms.
- F: nonflammable

**COILS**

- MMH: mH, UH:  $\mu$ H

**SEMICONDUCTORS**In each case, U:  $\mu$ , for example:UA...:  $\mu$ A..., UPA...:  $\mu$ PA...,UPC...:  $\mu$ PC, UPD...:  $\mu$ PD...

The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description	Remark			Ref.No	Part No.	Description	Remark		
901	*1-625-662-11	PC BOARD, D				C403	1-102-114-00	CERAMIC	470PF	10%	50V
902	*1-625-661-11	PC BOARD, CRT				C404	1-106-220-00	MYLAR	0.1MF	5%	100V
903	*A-3015-618-A	PC BOARD ASSY, A				C405	1-123-875-11	ELECT	10MF	20%	50V
904	*1-625-660-11	PC BOARD, EJ				C451	1-123-875-11	ELECT	10MF	20%	50V
905	1-526-736-00	SOCKET, CRT				C452	1-130-491-00	MYLAR	0.047MF	5%	50V
ANT901 1-501-405-11 ANTENNA, TELESCOPIC						C453	1-101-361-00	CERAMIC	150PF	5%	50V
CAPACITOR						C454	1-124-477-11	ELECT	47MF	20%	25V
C2	1-102-935-00	CERAMIC	2PF	0.5PF	50V	C455	1-124-499-11	ELECT	1MF	20%	50V
C3	1-102-960-00	CERAMIC	24PF	5%	50V	C456	1-124-477-11	ELECT	47MF	20%	25V
C4	1-102-953-00	CERAMIC	18PF	5%	50V	C457	1-130-483-00	MYLAR	0.01MF	5%	50V
C5	1-102-947-00	CERAMIC	10PF	0.5PF	50V	C458	1-126-101-11	ELECT	100MF	20%	16V
C6	1-102-973-00	CERAMIC	100PF	5%	50V	C459	1-130-499-00	MYLAR	0.22MF	5%	50V
C7	1-123-875-11	ELECT	10MF	20%	50V	C460	1-124-360-00	ELECT	1000MF	20%	16V
C8	1-102-074-00	CERAMIC	0.001MF	10%	50V	C461	1-130-491-00	MYLAR	0.047MF	5%	50V
C10	1-123-875-11	ELECT	10MF	20%	50V	C462	1-102-074-00	CERAMIC	0.001MF	10%	50V
C11	1-124-927-11	ELECT	4.7MF	20%	50V	C463	1-130-493-00	MYLAR	0.068MF	5%	50V
C12	1-124-499-11	ELECT	1MF	20%	50V	C501	1-130-483-00	MYLAR	0.01MF	5%	50V
C14	1-123-875-11	ELECT	10MF	20%	50V	C502	1-130-485-00	MYLAR	0.015MF	5%	50V
C15	1-101-004-00	CERAMIC	0.01MF		50V	C504	1-124-360-00	ELECT	1000MF	20%	16V
C16	1-123-875-11	ELECT	10MF	20%	50V	C505	1-101-004-00	CERAMIC	0.01MF		50V
C17	1-123-875-11	ELECT	10MF	20%	50V	C506	1-124-499-11	ELECT	1MF	20%	50V
C18	1-101-004-00	CERAMIC	0.01MF		50V	C507	1-130-487-00	MYLAR	0.022MF	5%	50V
C20	1-101-004-00	CERAMIC	0.01MF		50V	C508	1-130-479-00	MYLAR	0.0047MF	5%	50V
C101	1-102-074-00	CERAMIC	0.001MF	10%	50V	C509	1-124-120-11	ELECT	220MF	20%	16V
C151	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C551	1-131-347-00	TANTALUM	1MF	10%	25V
C153	1-101-004-00	CERAMIC	0.01MF		50V	C552	1-123-382-00	ELECT	3.3MF	20%	50V
C154	1-101-004-00	CERAMIC	0.01MF		50V	C553	1-131-347-00	TANTALUM	1MF	10%	25V
C155	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C554	1-131-347-00	TANTALUM	1MF	10%	25V
C156	1-101-004-00	CERAMIC	0.01MF		50V	C555	1-102-074-00	CERAMIC	0.001MF	10%	50V
C157	1-126-101-11	ELECT	100MF	20%	16V	C556	1-124-477-11	ELECT	47MF	20%	25V
C158	1-101-004-00	CERAMIC	0.01MF		50V	C557	1-124-360-00	ELECT	1000MF	20%	16V
C159	1-102-074-00	CERAMIC	0.001MF	10%	50V	C558	1-124-360-00	ELECT	1000MF	20%	16V
C160	1-102-074-00	CERAMIC	0.001MF	10%	50V	C559	1-124-477-11	ELECT	47MF	20%	25V
C161	1-102-121-00	CERAMIC	0.0022MF	10%	50V	C560	1-123-875-11	ELECT	10MF	20%	50V
C201	1-101-004-00	CERAMIC	0.01MF		50V	C561	1-124-245-00	ELECT	4.7MF	20%	35V
C202	1-101-004-00	CERAMIC	0.01MF		50V	C600	1-124-564-11	ELECT	4700MF	20%	25V
C203	1-101-004-00	CERAMIC	0.01MF		50V	C601	1-124-564-11	ELECT	4700MF	20%	25V
C204	1-101-004-00	CERAMIC	0.01MF		50V	C602	1-101-005-00	CERAMIC	0.022MF		50V
C205	1-124-908-11	ELECT	22MF	20%	50V	C603	1-101-005-00	CERAMIC	0.022MF		50V
C206	1-124-499-11	ELECT	1MF	20%	50V	C604	1-101-005-00	CERAMIC	0.022MF		50V
C207	1-101-004-00	CERAMIC	0.01MF		50V	C605	1-101-005-00	CERAMIC	0.022MF		50V
C208	1-101-880-00	CERAMIC	47PF	5%	50V	C606	1-101-005-00	CERAMIC	0.022MF		50V
C209	1-130-473-00	MYLAR	0.0015MF	5%	50V	C607	1-124-360-00	ELECT	1000MF	20%	16V
C210	1-123-382-00	ELECT	3.3MF	20%	50V	C608	1-101-004-00	CERAMIC	0.01MF		50V
C211	1-101-361-00	CERAMIC	150PF	5%	50V	C609	1-101-004-00	CERAMIC	0.01MF		50V
C212	1-130-491-00	MYLAR	0.047MF	5%	50V	C610	1-123-875-11	ELECT	10MF	20%	50V
C214	1-130-487-00	MYLAR	0.022MF	5%	50V	C611	1-102-110-00	CERAMIC	220PF	10%	50V
C215	1-101-004-00	CERAMIC	0.01MF		50V	C612	1-124-482-11	ELECT	33MF	20%	35V
C401	1-126-101-11	ELECT	100MF	20%	16V	C613	1-131-365-00	TANTALUM	10MF	20%	16V
C402	1-102-116-00	CERAMIC	680PF	10%	50V	C614	1-124-477-11	ELECT	47MF	20%	25V
						C615	1-126-103-11	ELECT	470MF	20%	16V
						C616	1-124-477-11	ELECT	47MF	20%	25V
						C801	1-102-074-00	CERAMIC	0.001MF	10%	50V

Ref.No	Part No.	Description	Remark
C802	1-102-074-00	CERAMIC	0.001MF 10% 50V
C803	1-124-477-11	ELECT	47MF 20% 25V
C804	△ 1-106-379-12	MYLAR	0.033MF 5% 100V
C805	△ 1-106-383-00	MYLAR	0.047MF 5% 100V
C806	1-124-667-11	ELECT	10MF 20% 100V
C807	1-123-006-00	ELECT	3.3MF 350V
C808	1-102-050-00	CERAMIC	0.01MF 99% 500V
C809	1-130-491-00	MYLAR	0.047MF 5% 50V
C810	1-101-004-00	CERAMIC	0.01MF 50V
C811	1-123-453-00	ELECT	4.7MF 20% 50V
CF2 CF3	1-567-097-61	FILTER, CERAMIC 10.7MHz	
CF201			
CF202	1-567-115-00	FILTER, CERAMIC 4.5MHz	
CF202	1-577-066-11	FILTER, CERAMIC (DISCRIMINATOR) 4.5MHz	
CF401	1-409-370-00	TRAP, CERAMIC 4.5MHZ	
CNP601	*1-560-596-00	PIN, CONNECTOR 2P	
CNP603	*1-560-598-00	PIN, CONNECTOR 4P	
CNP801	*1-560-599-00	PIN, CONNECTOR 5P	
CV1-4 CT1-4 RV156	1-151-533-11	CAP, VAR, POLYETHYLENE (TUNING)	
D1			
D2			
D3	8-719-921-22	DIODE 1SS277	
D4	8-719-921-22	DIODE 1SS277	
D51	8-719-109-93	DIODE RD6.2ES-B2	
D51	8-719-901-33	DIODE 1SS133	
D51	8-719-921-22	DIODE 1SS277	
D152	8-719-901-33	DIODE 1SS133	
D153	8-719-901-33	DIODE 1SS133	
D201	8-719-110-03	DIODE RD7.5ES-B2	
D401	8-719-901-33	DIODE 1SS133	
D501	8-719-110-46	DIODE RD16ES-B3	
D502	8-719-110-31	DIODE RD12ES-B2	
D551	8-719-901-33	DIODE 1SS133	
D552	8-719-901-33	DIODE 1SS133	
D553	8-719-901-33	DIODE 1SS133	
D601	8-719-200-02	DIODE 10E2	
D602	8-719-200-02	DIODE 10E2	
D603	8-719-200-02	DIODE 10E2	
D604	8-719-200-02	DIODE 10E2	
D605	8-719-200-02	DIODE 10E2	
D606	8-719-109-93	DIODE RD6.2ES-B2	
D607	8-719-940-69	DIODE 1SS131	
D801	8-719-901-33	DIODE 1SS133	
D802	8-719-924-06	DIODE ERC24-06	
D803	1-808-394-11	DIODE GP10G5020	
D804	8-719-924-06	DIODE ERC24-06	
D805	8-719-200-02	DIODE 10E2	
F601	△ 1-532-872-11	FUSE, GLASS TUBE 250V 1A	
F602	△ 1-532-591-00	FUSE, GLASS TUBE 125V 2A	
FL1	1-235-171-00	FILTER, BAND PASS	
IC1	8-752-011-11	IC CX20111	
IC201	1-808-293-11	IC AN5151N	
IC451	1-808-312-11	IC BA532	
IC601	8-759-929-39	IC BA6161M	
J101	1-507-667-00	JACK (EXT ANT)	
J451	1-507-578-00	JACK (EARPHONE)	
J601	1-507-563-00	DC JACK (DC IN 12V)	
J602	△ 1-540-009-11	INLET, AC (AC IN 120V)	
L1	1-402-355-11	ANTENNA, FERRITE-MOD (AM)	
L2-1	*1-426-074-00	COIL, FM RF	
L2-2	1-406-042-00	COIL, FM RF	

Ref.No	Part No.	Description	Remark
L3	1-422-131-00	COIL, FM OSC	
L4	1-406-087-11	COIL, AM OSC	
L151	1-410-324-11	INDUCTOR 4.7UH	
L152	1-410-324-11	INDUCTOR 4.7UH	
L201	1-410-316-11	INDUCTOR 1UH	
L202	1-404-785-11	COIL, VIF DETECTOR	
L203	1-410-357-31	INDUCTOR 0.27UH	
L204	1-410-329-31	INDUCTOR 15UH	
L401	1-408-420-00	INDUCTOR 82UH	
L501	1-408-575-00	INDUCTOR 100UH	
L502	1-408-572-00	INDUCTOR 56UH	
L601	1-421-984-11	COIL, CHOKE 4.7MMH	
L602	1-410-334-11	INDUCTOR 100UH	
L901	△ 1-451-318-11	DEFLECTION YOKE	
Q1	8-729-904-36	TRANSISTOR DTC114YS	
Q151	8-729-178-43	TRANSISTOR 2SC2784	
Q152	8-729-904-36	TRANSISTOR DTC114YS	
Q201	8-729-178-63	TRANSISTOR 2SC2786-K	
Q401	1-808-313-11	TRANSISTOR 2SC3478	
Q551	8-729-178-43	TRANSISTOR 2SC2784	
Q552	8-729-100-13	TRANSISTOR 2SC2001	
Q553	8-729-195-24	TRANSISTOR 2SA952	
Q601	△ 8-729-111-67	TRANSISTOR 2SB1094-L	
Q603	8-729-178-43	TRANSISTOR 2SC2784	
Q801	8-729-100-13	TRANSISTOR 2SC2001	
Q802	8-729-137-32	TRANSISTOR 2SC2373	
RESISTOR			
R1	1-249-429-11	CARBON 10K 5% 1/4W	
R2	1-249-421-11	CARBON 2.2K 5% 1/4W	
R3	1-249-405-11	CARBON 100 5% 1/4W	
R4	1-249-423-11	CARBON 3.3K 5% 1/4W	
R5	1-249-410-11	CARBON 270 5% 1/4W	
R6	△ 1-249-409-11	CARBON 220 5% 1/4W	F
R7	△ 1-249-409-11	CARBON 220 5% 1/4W	F
R8	1-249-417-11	CARBON 1K 5% 1/4W	
R101	1-249-435-11	CARBON 33K 5% 1/4W	
R102	1-249-429-11	CARBON 10K 5% 1/4W	
R152	1-249-429-11	CARBON 10K 5% 1/4W	
R153	1-249-441-11	CARBON 100K 5% 1/4W	
R154	1-249-431-11	CARBON 15K 5% 1/4W	
R155	1-249-437-11	CARBON 47K 5% 1/4W	
R156	1-249-441-11	CARBON 100K 5% 1/4W	
R157	1-247-903-00	CARBON 1M 5% 1/4W	
R158	1-249-441-11	CARBON 100K 5% 1/4W	
R201	1-249-404-00	CARBON 82 5% 1/4W	
R202	1-249-427-11	CARBON 6.8K 5% 1/4W	
R203	1-249-426-11	CARBON 5.6K 5% 1/4W	
R204	1-249-413-11	CARBON 470 5% 1/4W	
R205	1-249-407-11	CARBON 150 5% 1/4W	
R207	1-249-416-11	CARBON 820 5% 1/4W	
R208	1-249-429-11	CARBON 10K 5% 1/4W	
R209	1-249-414-11	CARBON 560 5% 1/4W	
R210	1-249-420-11	CARBON 1.8K 5% 1/4W	
R211	1-249-409-11	CARBON 220 5% 1/4W	
R212	1-249-440-11	CARBON 82K 5% 1/4W	
R213	1-249-415-11	CARBON 680 5% 1/4W	
R214	1-249-421-11	CARBON 2.2K 5% 1/4W	
R216	1-249-429-11	CARBON 10K 5% 1/4W	
R217	1-249-393-11	CARBON 10 5% 1/4W	
R218	1-249-417-11	CARBON 1K 5% 1/4W	
R219	△ 1-249-405-11	CARBON 100 5% 1/4W	F
R401	1-249-409-11	CARBON 220 5% 1/4W	
R402	1-249-393-11	CARBON 10 5% 1/4W	

**Note:** The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description	Remark		
R403	1-249-412-11	CARBON	390	5%	1/4W
R404	1-249-417-11	CARBON	1K	5%	1/4W
R405	1-249-417-11	CARBON	1K	5%	1/4W
R406	1-249-429-11	CARBON	10K	5%	1/4W
R407	1-249-429-11	CARBON	10K	5%	1/4W
R408	1-249-426-11	CARBON	5.6K	5%	1/4W
R451	1-249-409-11	CARBON	220	5%	1/4W
R452	1-247-731-11	CARBON	22	5%	1/2W
R453	1-249-409-11	CARBON	220	5%	1/4W
R454	1-249-434-11	CARBON	27K	5%	1/4W
R501	1-249-426-11	CARBON	5.6K	5%	1/4W
R502	1-249-437-11	CARBON	47K	5%	1/4W
R503	1-249-419-11	CARBON	1.5K	5%	1/4W
R504	1-249-434-11	CARBON	27K	5%	1/4W
R506	1-249-433-11	CARBON	22K	5%	1/4W
R507	1-249-418-11	CARBON	1.2K	5%	1/4W
R508	1-249-431-11	CARBON	15K	5%	1/4W
R509	△ 1-249-405-11	CARBON	100	5%	1/4W F
R510	1-249-430-11	CARBON	12K	5%	1/4W
R551	1-249-422-11	CARBON	2.7K	5%	1/4W
R552	1-249-418-11	CARBON	1.2K	5%	1/4W
R553	1-249-412-11	CARBON	390	5%	1/4W
R554	1-249-417-11	CARBON	1K	5%	1/4W
R555	1-247-889-00	CARBON	270K	5%	1/4W
R556	1-249-433-11	CARBON	22K	5%	1/4W
R557	1-249-436-11	CARBON	39K	5%	1/4W
R558	1-249-425-11	CARBON	4.7K	5%	1/4W
R559	1-249-440-11	CARBON	82K	5%	1/4W
R560	1-249-415-11	CARBON	680	5%	1/4W
R561	1-249-416-11	CARBON	820	5%	1/4W
R562	1-249-411-11	CARBON	330	5%	1/4W
R563	1-249-385-11	CARBON	2.2	5%	1/4W
R565	1-249-381-11	CARBON	1	5%	1/4W
R566	1-249-431-11	CARBON	15K	5%	1/4W
R567	1-249-409-11	CARBON	220	5%	1/4W
R601	△ 1-202-725-00	SOLID	3.3M	10%	1/2W
R603	1-249-417-11	CARBON	1K	5%	1/4W
R604	1-249-411-11	CARBON	330	5%	1/4W
R605	1-249-405-11	CARBON	100	5%	1/4W
R606	1-249-405-11	CARBON	100	5%	1/4W
R607	△ 1-249-422-11	CARBON	2.7K	5%	1/4W
R608	△ 1-249-420-11	CARBON	1.8K	5%	1/4W
R609	△ 1-249-405-11	CARBON	100	5%	1/4W F
R801	1-249-417-11	CARBON	1K	5%	1/4W
R802	1-249-405-11	CARBON	100	5%	1/4W
R803	1-249-405-11	CARBON	100	5%	1/4W
R804	1-249-429-11	CARBON	10K	5%	1/4W
R805	1-247-899-11	CARBON	680K	5%	1/4W
R806	1-247-897-11	CARBON	560K	5%	1/4W
R807	1-249-433-11	CARBON	22K	5%	1/4W
R808	1-259-378-11	CARBON	3.3M	5%	1/6W
R809	1-259-377-11	CARBON	2.2M	5%	1/6W
R810	1-249-385-11	CARBON	2.2	5%	1/4W
RV151	1-238-055-11	RES, ADJ, CARBON 100K			
RV152	1-238-055-11	RES, ADJ, CARBON 100K			
RV153	1-238-055-11	RES, ADJ, CARBON 100K			
RV154	1-238-054-11	RES, ADJ, CARBON 50K			
RV155	1-228-994-00	RES, ADJ, CARBON 10K			
RV201	1-237-619-11	RES, ADJ, CARBON 5K			
RV401	1-238-049-21	RES, VAR, CARBON 2K (CONTR)			
RV451	1-228-790-21	RES, VAR, CARBON 50K (TONE)			
RV452	1-228-121-21	RES, VAR, CARBON 10K (VOLUME)			
RV501	1-228-994-00	RES, ADJ, CARBON 10K			
RV551	1-238-122-11	RES, ADJ, CARBON 500			
RV552	1-238-050-21	RES, VAR, CARBON 100K (V-HOLD)			

Ref.No	Part No.	Description	Remark
RV601	△ 1-238-053-11	RES, ADJ, CARBON 1K	
RV801	1-238-051-21	RES, VAR, CARBON 1M (BRT)	
S1	1-554-061-00	SWITCH, SLIDE (FUNCTION)	
S151	1-554-222-00	SWITCH, SLIDE (TV BAND)	
S601	1-554-358-00	SWITCH, PUSH (POWER)	
S602	1-554-222-00	SWITCH, SLIDE (PICTURE)	
SP901	1-503-916-11	SPEAKER	
SWF201	1-404-635-11	SAWF (DIP TYPE)	
T1	1-567-552-11	FILTER, AM CERAMIC	
T601	△ 1-449-167-11	TRANSFORMER, POWER	
T801	△ 1-439-422-11	TRANSFORMER ASSY, FLYBACK	
TU151	1-463-973-11	TUNER UNIT	
V901	△ 1-546-069-11	CATHODE-RAY TUBE, B/W	

## ACCESSORY &amp; PACKING MATERIAL

Part No.	Description	Remark
△ 1-558-834-11	CORD, POWER	
* 3-345-529-01	CUSHION (LEFT) (RIGHT)	
* 3-345-530-01	INDIVIDUAL CARTON	
3-769-856-21	MANUAL, INSTRUCTION	

**Note:** The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

